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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

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FEDERAL COMMUNICATIONS COMMISSION
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In the Matter of	)	
	)	
Review of Regulatory Requirements for	)	
Incumbent LEC Broadband	)	CC Docket No. 01-337
Telecommunications Services	)	

COMMENTS OF QWEST COMMUNICATIONS INTERNATIONAL INC.

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SUMMARY

Although incumbent local exchange carriers are regulated as dominant in their provision of broadband services to both the mass market and the large business market, they lack, and for years have lacked, the requisite market power to justify such regulatory classification. The Commission should immediately move to reclassify ILECs as nondominant in their provision of such services and forbear from the costly and burdensome tariff regulations that currently apply to ILEC broadband services, and that have impeded ILECs from fully participating in the broadband marketplace and serving their customers' needs.

Under the Commission's rules, a carrier should be regulated as "dominant" only if it possesses individual market power in the relevant product and geographic markets. The relevant product markets are comprised of the mass market for broadband services, which includes DSL, cable modem, wireless and satellite services generally provided to consumers and small businesses, and the larger business market, which includes ATM, frame relay, and Gigabit Ethernet services. For both of these types of services, the relevant geographic market is national, given that, among other things, the supply of these services by the providers who offer them is largely consistent across the country. But no matter how the geographic market for either class of services is defined, it is clear that ILECs face significant competition from rival providers. In both the mass market and the large business market, providers other than the ILECs control a *larger* share of the markets and are expected to do so for the foreseeable future. Moreover, those other broadband providers have the capacity and the ability to serve additional customers and thus to constrain the ILECs from gaining or exercising any market power.

For example, if any class of carriers is "dominant" in the mass market for broadband services, it is cable modem providers — not the ILECs; DSL providers across the country have a

smaller market share than cable providers and can serve fewer customers than their cable or satellite competitors. Qwest and other ILECs similarly lack "dominant" market power in the large business market for packet switching services, where the large IXCs dominate, having both a significantly larger market share and the capacity to serve customers nationwide on their own facilities. Experience has also shown that there is no potential that the ILECs will "leverage" any market power they possess in local exchange or exchange access markets to gain market power in broadband services for large business customers. Their competitors typically do not even rely on ILEC local exchange or exchange access facilities or services; other providers of the necessary facilities exist and in any event, Commission regulations adequately constrain any potential "leveraging." Indeed, despite having been in the market for several years, the ILECs have never exercised such "leverage."

In light of these market conditions, the current classification of ILECs as dominant in the provision of broadband services is simply an unjustifiable and harmful regulatory legacy. Dominant carrier regulation imposes significant regulatory costs that skew and retard the development of competition in the broadband services market, particularly since ILECs' larger competitors are not saddled with similarly burdensome regulations. As the Commission has noted, subjecting a carrier to tariff regulation in a competitive environment hampers "its ability to respond to moves by its competitors" and reduces its "incentive and ability to initiate pro-competitive strategies."

Moving to a more deregulatory approach in this market for *all* players is absolutely critical. Competition by the ILECs has been stymied, investments in new technology by the ILECs, which are a natural source for such investment and innovation, have been hindered — and, ultimately, it is the consumer who bears the greatest share of the harm. Congress has given

the Commission the responsibility of working rapidly to accelerate the deployment of broadband. Removal of unjustifiable dominant carrier regulation is a limited, but necessary, step in carrying out that mandate. The Commission should reclassify ILECs as nondominant in their provision of broadband services, and correct the anachronistic regulatory asymmetry that hinders competition with other providers of broadband services, and thus denies to consumers the full benefits that competition can bring.

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COMMENTS OF QWEST COMMUNICATIONS INTERNATIONAL INC.

Qwest Communications International Inc. ("Qwest") respectfully submits its Initial Comments in response to the Commission's Notice of Proposed Rulemaking in the above-captioned proceeding.[1/] As shown below, Qwest and the other ILECs lack the requisite market power for broadband services to justify a finding of dominance; indeed, reclassifying ILECs' provision of broadband services as nondominant is long overdue. Accordingly, the Commission should eliminate the dominant carrier classification that currently applies to ILECs' provision of broadband services, and should forbear from any tariffing requirements that currently apply to those services. Besides reducing unnecessary and burdensome regulatory costs, this course of action will increase customer choices by allowing ILECs to offer service arrangements tailored to individual customers' needs and will further broadband deployment.

1/ Notice of Proposed Rulemaking, *In the Matter of Review of Regulatory Requirements for Incumbent LEC Broadband Telecommunications Services*, CC Docket No. 01-337, FCC 01-360 (rel. Dec. 20, 2001) ("*Notice*").

I. INTRODUCTION

Under the Commission's rules, a carrier should be regulated as "dominant" only if it possesses individual market power in the relevant product and geographic markets.[2/] There is little question that the ILECs have nothing like the degree of market power in the broadband market or markets that could justify a finding of dominance on any grounds under well-established Commission precedent. In fact, as Qwest discusses in greater detail below, providers *other* than ILECs control a larger market share of the broadband services markets and are expected to do so for the foreseeable future. Moreover, the other factors in the Commission's traditional market power analysis — including specifically the capacity of the ILECs' rival providers to readily expand their services and absorb the ILECs' customers — also show that the ILECs lack requisite market power for a finding of dominance in broadband.

For example, in one of the broadband markets tentatively identified in the *Notice*[3/] — the so-called "mass market" consisting of individual consumers and small businesses — ILECs compete with cable modem, wireless, and satellite providers. If any class of carriers is "dominant" in that market, it is the cable modem providers — not the ILECs. For example, the Commission's recently reported broadband subscriber numbers indicate that cable modem providers have approximately 64 percent of the residential and small business broadband market,[4/] while DSL providers in the aggregate have a share of approximately 34 percent.[5/] Nor

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2/ Order, *Motion of AT&T Corp. to be Reclassified as a Non-dominant Carrier,* 11 FCC Rcd 3271, 3346 ¶ 138 (1995) ("*AT&T Reclassification Order*").

3/ *Notice* at ¶ 20.

4/ Third Report, *Inquiry Concerning the Deployment of Advanced Telecommunications Capability to All Americans in a Reasonable and Timely Fashion, and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996,* CC Docket No. 98-146, FCC 02-33, App. C, Table 4 (rel. Feb. 6, 2002) ("*Third Advanced Services Report*").

is there any evidence that DSL will gain a dominant market share in the foreseeable future, as the Commission itself has noted.[6/] Indeed, analysts have predicted that by year-end 2002, cable modem providers will, in the aggregate, have approximately 9.6 million subscribers, while DSL providers will have fewer than 6 million.[7/] Moreover, the ILECs' broadband competitors have more than enough capacity to absorb significant numbers of an ILEC's DSL customers, thereby preventing an ILEC from unilaterally raising prices for mass market broadband services.

The Commission's figures mirror Qwest's own experience. Qwest offers mass market broadband services across its 14-state region and nationwide. As of September 30, 2001, Qwest's data shows that Qwest had approximately 450,000 broadband subscribers in that region, amounting to approximately 26 percent of the mass market for broadband services. In contrast, cable modem providers operating in Qwest's region served 63 percent of the market. Satellite broadband providers had an additional 11 percent share of the market in this region by this date.

Qwest and other ILECs have a similarly small market share and lack of "dominant" market power in the other "advanced services market" tentatively identified in the *Notice* for comment — the large business market for packet switching services, such as frame relay and ATM services.[8/] The Commission itself has recognized that this market is "highly

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5/ *Id.* The aggregate share for ILEC DSL services is even less, as the 34 percent share is for all providers of DSL and includes "other wireline" services, which are not all DSL services. Wireless and satellite providers held approximately 2 percent combined. *Id.*

6/ *See Third Advanced Services Report* at 27-28 ¶ 63.

7// Yankee Group, Cable Modem Providers Continue to Lead HS Internet Charge (August 2001); Yankee Group, Whose Number is Up (September 2001).

8/ *Notice* at ¶¶ 20-22.

competitive."[9/] And if any carriers have significant market power in this market, they are the largest long distance providers: for example, AT&T, WorldCom, and Sprint collectively have a share of 68.7 percent of all frame relay revenues and 65.8 percent of all ATM revenues.[10/] ILECs cannot hope to attain — and for years have not attained — a dominant position in this market. For example, as of year-end 2000, Qwest had slightly less than 5 percent of all frame relay revenues nationwide, including both its in-region and out-of-region services, and no ILEC had more than 5 percent of those total revenues — while AT&T had almost 35 percent, WorldCom almost 33 percent, and Sprint almost 10 percent; similarly, Qwest had only slightly over 4 percent of total ATM revenues nationwide, including again its in- and out-of-region services, and no ILEC had more than 7 percent of those revenues, while AT&T, Sprint, and WorldCom each had more than 20 percent.[11/]

9/ Order, *Open Network Architecture Tariffs of Bell Operating Companies,* 9 FCC Rcd 440, ¶ 68 (1993). See also Andrew Robinson, *Maintaining QoS for IP-based VPN's,* Telecommunications International, Dec. 1, 2000 (noting that the market for ATM and frame relay services is "competitive" and "demanding").

10/ *See, e.g.,* Declaration of Robert W. Crandall and S. Gregory Sidak, *Petition For Expedited Ruling That It Is Non-Dominant In Its Provision of Advanced Services and For Forbearance From Dominant Carrier Regulation of Those Services,* ¶ 106 (Oct. 3, 2001) ("SBC Petition") (citing IDC, U.S. Frame Relay Services: Market Forecast and Analysis, 2000-2005, at Figure 5 (2001); IDC, ATM Services Market Share and Assessment, 2000-2005 at Figure 6 (2001)); *see also* Department of Justice Complaint, *U.S. v. WorldCom,* filed June 26, 2000, ¶¶ 129, 131 (reporting that in the market for the provision of frame relay services, WorldCom has a revenue share of at least 36 percent and Sprint a share at least 19 percent in the provision of frame relay services to high-end customers, and in the market for the provision of ATM services to high-end customers WorldCom has a revenue share of at least 37 percent and Sprint a share of at least 33 percent).

11/ IDC U.S. Frame Relay and ATM Market Update (2001). If frame relay and ATM revenues are grouped with Gigabit Ethernet revenues, as they should be, Qwest's market share would even be less than shown. Based on preliminary market data, Qwest believes these numbers did not change significantly in 2001.

Moreover, competition in this market is *increasing*. Competition to traditional frame relay and ATM services is emerging from providers of newer services such as Gigabit Ethernet, which is provided by an array of CLECs, as well as the IXCs and the ILECs. And while interLATA restrictions currently prevent the BOCs from playing a significant role in this market — because large business customers typically seek packet services that cross LATA boundaries — the receipt of section 271 authority will simply result in the BOCs' section 272 affiliates competing as new entrants against the more established national, facilities-based IXCs that currently dominate the market. Experience also has shown that there is no potential that the ILECs will "leverage" any market power they possess in local exchange or exchange access markets to gain market power in broadband services for large business customers. Clearly, then, the ILECs are not dominant, or likely ever to be dominant, in the broadband business market.

In light of these market conditions, the current classification of ILECs as dominant in the provision of broadband services is simply an unjustifiable and harmful regulatory legacy. As Chairman Powell recently observed, the costs associated with continued, and unnecessary, regulation are one of the significant obstacles to accelerated deployment of broadband services: "Because the capital for infrastructure investment will have to come primarily from the private sector, the FCC must try to minimize the cost of bringing broadband services to the public by minimizing regulatory costs. These regulatory costs can be just as significant a barrier to deployment as the challenge of raising capital in the dark of a recession."[12/]

Dominant carrier regulation imposes significant regulatory costs that skew and retard the development of competition in the broadband services market, particularly since ILECs' larger

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12/ Separate Statement of Chairman Michael K. Powell, *Re: Appropriate Framework for Broadband Access to the Internet Over Wireline Facilities; Universal Service Obligations of Broadband Providers,* CC Docket No. 02-33, FCC 02-42, 1-2 (rel. Feb. 15, 2002).

competitors are not saddled with similarly burdensome regulations. For example, under current regulations, Qwest must file tariffs in accordance with section 203 of the Act and is subject to related administrative costs. Moreover, these requirements, which automatically give Qwest's competitors notice of any discounts Qwest seeks to offer its customers, make it more cumbersome and less attractive for Qwest to offer such discounts. The requirements impede Qwest's ability to respond quickly to changes in demand and cost and to contribute meaningfully to the development and technology and innovation.[13/] As the Commission has noted, subjecting a carrier to tariff regulation in a competitive environment hampers "its ability to respond to moves by its competitors" and reduces its "incentive and ability to initiate pro-competitive strategies."[14/] Specifically, such regulations "reduce incentives for competitive price discounting, constrain carriers' ability to make rapid, efficient responses to changes in demand and cost, and impose costs on carriers that attempt to make new offerings."[15/]

As the Commission has also found, tariff requirements can operate to "prevent customers from seeking out or obtaining service arrangements specifically tailored to their needs."[16/] The

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13/ *See* Second Report and Order, *Policy and Rules Concerning the Interstate, Interexchange Marketplace, Implementation of Section 254(g) of the Communications Act of 1934, as amended,* 11 FCC Rcd 20730, 20760 ¶ 53 (1996) ("IXC Forbearance Order").

14/ *AT&T Reclassification Order* at 3291 ¶ 32.

15/ Second Report and Order in CC Docket No. 96-149 and Third Report and Order in CC Docket No. 96-61, *Regulatory Treatment of LEC Provision of Interexchange Service Originating in the LEC's Local Exchange Area and Policy and Rules Concerning the Interstate, Interexchange Marketplace*, 12 FCC Rcd 15756, 15807 ¶ 88 (1997) ("*LEC Classification Order*").

16/ *LEC Classification Order* at ¶ 88. *See also* John Haring and Harry M. Shooshan, Strategic Policy Research Report, *ILEC Non-Dominance in the Provision of Retail Broadband Services* (Mar. 1, 2002) (submitted as Attachment A to these comments) ("SPR Report") (explaining that dominant carrier regulation limits "ILEC flexibility to offer customized offerings and to partner strategically with customers (especially large business or public enterprises) to share financial risks").

legacy tariff requirements imposed on ILECs in essence restrict the ILEC to providing customers with one-size-fits-all offerings. Customers, of course, are different and have different needs and priorities. For example, some customers may care only about price, while some may be willing to pay higher rates for higher quality services. Yet where tariff requirements apply, ILECs cannot flexibly respond to customer needs or requirements or distinguish among customers. This limits competition for more unique customer needs, because ILECs typically cannot respond to such demands in a timely manner, leaving those customers with a smaller array of choices. As the Commission has observed, unnecessary regulation "can have profoundly negative implications for consumer welfare."[17/]

The relief being considered in this proceeding is a critical piece of leveling a skewed regulatory landscape and is appropriately being considered in the broader context of the anachronistic regulations that similarly burden the facilities and wholesale services ILECs provide in the broadband services market. Moving to a more deregulatory approach in this market for *all* players — not just the cable modem providers, satellite service providers, fixed wireless providers, CLECs and IXCs, but the ILECs as well — is absolutely critical. Competition by the ILEC has been stymied, investments in new technology by the ILECs, which are a natural source for such investment and innovation, have been hindered — and, ultimately, it is the consumer who bears the greatest share of the harm. The need for deregulation and regulatory symmetry is becoming even more acute as broadband providers begin to offer data, video, and voice over a single platform, defying existing regulatory classifications. Congress has given the Commission the responsibility of working rapidly to accelerate the deployment of

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17/ Further Notice of Proposed Rulemaking, *Policy and Rules Concerning Rates for Competitive Common Carrier Services and Facilities Authorizations Therefor*, 84 FCC 2d 445, 449 ¶ 12 (1980) ("*Competitive Carrier Further Notice*").

broadband. Removal of unjustifiable dominant carrier regulation is a limited, but necessary, step in carrying out that mandate.

The Commission has now opened a number of proceedings that provide it with the opportunity to move toward implementing Congress's mandate that it adopt a procompetitive, deregulatory framework, and that it "take immediate action to accelerate" the deployment of broadband services.[18/] In the *Triennial UNE Review*[19/] and the *Framework for Broadband Access NPRM*,[20/] in particular, the Commission will examine some of the most fundamental and critical questions about whether and how to regulate the provision of broadband services and the underlying facilities used to provide them. While the relief the Commission should grant in this specific proceeding is both welcome and necessary, it cannot substitute for the elimination or modification of the regulations at issue in those other proceedings. This proceeding is a small but important step in the Commission's long overdue reexamination of the regulatory requirements and classifications that should apply to broadband and advanced services. The Commission should reclassify ILECs as nondominant in their provision of broadband services and correct the anachronistic regulatory asymmetry that hinders competition with other providers of broadband services, and thus denies to consumers the full benefits that competition can bring.

18/ 47 U.S.C. § 706.

19/ *See* Notice of Proposed Rulemaking, *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers, Implementation of the Local Competition Provisions of the Telecommunications Act of 1996, Deployment of Wireline Services Offering Advanced Service Capability,* CC Docket Nos. 10-1339, 96-98, 98-147, FCC 01-361 (rel. Dec. 20, 2001).

20/ *See* Notice of Proposed Rulemaking, *Appropriate Framework for Broadband Access to the Internet over Wireline Facilities, Universal Service Obligations of Broadband Providers, Computer III Further Remand Proceedings: Bell Operating Company Provision of Enhanced Services; 1998 Biennial Regulatory Review — Review of Computer III and ONA Safeguards and Requirements,* CC Docket Nos. 02-33, 95-20, 98-10, FCC 02-42 (rel. Feb. 14, 2002).

II. DEFINING THE RELEVANT MARKET FOR REGULATORY PURPOSES

As the Commission has noted, the "first step in assessing what regulatory requirements are appropriate" and whether a carrier may be considered "dominant" with respect to a class of services is "to define and analyze the relevant markets in which [the carrier] provide[s] these services."[21/] As noted below, the Commission has traditionally followed certain guidelines in defining both the product and geographic markets that should apply here as well.

In the *LEC Classification Order*, the Commission adopted an approach to market definition that follows the Department of Justice/Federal Trade Commission Merger Guidelines.[22/] The Commission subsequently applied this approach in reviewing the WorldCom-MCI merger as well as other proposed mergers.[23/] Under the Merger Guidelines, relevant markets are defined primarily on the basis of demand substitutability, *i.e.*, whether end users view particular services as reasonably interchangeable in their use.[24/] Two services will be deemed to be in the same product market if a small but non-transitory price increase by a monopoly provider of one of these services would cause enough buyers to shift their purchases

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21/ *Notice* at 17.

22/ *LEC Classification Order* at 15774 ¶ 26; United States Dept. of Justice Antitrust Div. and Federal Trade Commission, 1992 Horizontal Merger Guidelines, 57 Fed. Reg. 41552 (1992) ("Merger Guidelines").

23/ *See* Memorandum Opinion and Order, *Application of WorldCom, Inc. and MCI Corporation Group for Transfer Control of MCI Communications Corp. to WorldCom, Inc.*, 13 FCC Rcd 18025, 18040-43 ¶¶ 24-31 (1998) ("*WorldCom-MCI Merger Order*").

24/ *LEC Classification Order* at 15774 ¶ 26. *But see Worldcom-MCI Merger Order* at 18041 ¶ 27 (not necessary to identify additional product markets because production substitution among the services is "nearly universal").

to other services as to render the price increase unprofitable.[25] A similar analysis is used to define the geographic areas comprising a relevant geographic market.[26]

Because quantitative analysis of cross-elasticities of demand between two services is often unavailable, the Commission has in practice often relied on qualitative analysis regarding whether two services are "reasonably interchangeable" in their use.[27] In addition, the Commission has acknowledged that it may not always be practicable or necessary to analyze individual product or geographic markets, and it therefore will analyze market power for a specific service or geographic area only if there is credible evidence suggesting *an absence* of competitive performance with respect to that service or area.[28]

Using that analysis, the definition of the broadband services *product* markets is relatively straightforward. Clearly, as the Commission appears to have recognized, the markets should be defined independently of the technology or facilities being used and instead should focus on the *services* being offered and the degree to which those services are substitutes for one another. The Commission's "traditional" definitions of a mass market (which would consist here of DSL, cable modem, satellite, and fixed wireless service) versus a large business market (which would consist here of frame relay, ATM, and similar packet switched services) are an entirely sensible

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25/ Merger Guidelines § 1; *LEC Classification Order* at 15775 ¶ 28. *See also* SPR Report at 3 ("Analysis of demand-side substitutability is the standard approach to market definition, consistent with economic theory and enforcement of competition policy by the antitrust authorities") (citations omitted).

26/ *Id.*

27/ Memorandum Opinion and Order, *Application of NYNEX Corporation, Transferor and Bell Atlantic Corporation, Transferee, For Consent to Transfer Control of NYNEX Corporation and Its Subsidiaries,* 12 FCC Rcd 19985, 20015 ¶ 50 n.110 (1997) ("*Bell Atlantic-NYNEX Merger Order*").

28/ *See LEC Classification Order* at 15786, 15794 ¶¶ 50, 66.

division with respect to ILEC provision of broadband services.[29] While arriving at the "rigorous" definition of precisely what services qualify as "broadband" is an easier goal to set than to fulfill given the ever-changing, dynamic nature of these services,[30] it is clear that the high speed, data access/transmission services that comprise the various advanced services products fall properly into these two broad product market categories, within which — but not between which — there is significant competition and substitution of services by customers. Breaking the services down into these two categories accordingly best fulfills the Commission's goal of defining a product market that includes "all reasonably substitutable services."[31]

Similarly, under standard Commission analysis, the relevant geographic markets for the broadband services provided to the mass market and to the large business market should be the entire nation. This approach makes the most sense and best mirrors the manner in which the competitive alternatives are generally available. And it also is significantly more administrable than a market definition that turns on whether consumers in the market "fac[e] similar competitive choices."[32]

These markets are discussed in further detail below. However, it is important to recognize that the finding of nondominance does not and should not in this case depend on the niceties of market definition. As the Commission must recognize after several years of regulating ILEC provision of broadband services, ILECs cannot reasonably be considered

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29/ *Notice* ¶ 20.

30/ *Id.* ¶ 18.

31/ *Id.*

32/ *Id.* ¶ 27.

dominant in any of the broadband services markets, no matter how they are segmented or defined.

A. Product Market

As the Commission recognized in the *Notice*, relevant product markets must be defined by reference to the *services* offered, and should not depend on the facilities used to provide those services.[33/] Indeed, intermodal alternatives to the ILECs' broadband services clearly fall within the same markets as those ILEC services, regardless of the specific facilities or platform used by the provider, because end users willingly purchase such services in lieu of ILEC broadband services. As the Commission itself observed, "the services provided by different communications networks are converging, as cable providers, satellite providers, and terrestrial wireless network providers develop new services that are becoming increasingly substitutable for the broadband services provided over the traditional telephone network."[34/]

As discussed below, application of the Commission's established approach to market definition reveals that, as the Commission has suggested,[35/] there are two relevant product markets for broadband services provided by incumbent LECs: broadband services for the mass market (*i.e.,* residential end users and smaller businesses) and broadband services for larger businesses. The first market includes such mass market services as DSL, cable modem, satellite, and fixed wireless, which, as we show, are used interchangeably by consumers for high-speed

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33/ *Id.* ¶ 19.

34/ *Id.* ¶ 4 (citing Second 706 Report, *Inquiry Concerning the Deployment of Advanced Telecommunications Services to All Americans in a Reasonable and Timely Fashion and Possible Steps to Accelerate Such Deployment Pursuant to Section 706 of the Telecommunications Act of 1996*, 15 FCC Rcd 20913, 20928-30, 20932-38, 20952-54 and 20958-61 ("*Second 706 Report*")).

35/ *Id.* ¶ 20.

Internet access. This market does not, however, include narrowband "dial-up" access to the Internet.[36] The second market, for large business services, includes frame relay, Asynchronous Transfer Mode ("ATM"), and Gigabit Ethernet services.

1. Broadband Services Provided to Mass Market Customers and to Large Businesses Constitute Separate Product Markets.

In the context of long distance services, the Commission has identified separate product markets for services provided to mass market and larger business customers.[37] In the *WorldCom-MCI Merger Order*, the Commission distinguished mass market consumers from larger business consumers, because larger business consumers often demand advanced and sophisticated long distance features, such as frame relay, virtual private networks, and enhanced 800 services, that differ from the services generally demanded by mass market consumers.[38] In evaluating the SBC-Ameritech and GTE-Bell Atlantic mergers, the Commission made similar determinations with regard to local exchange and exchange access services. The Commission distinguished mass market consumers from larger business customers because the services offered to one group may not be adequate or feasible substitutes for services offered to the other group, and because firms need different assets and capabilities to target these two markets successfully.[39]

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[36] As explained below, there are no separate product markets or submarkets for services marketed to small and medium enterprises ("SMEs") or small or home offices ("SOHOs"), or for retail and wholesale broadband services.

[37] *WorldCom-MCI Merger Order* at 18040-41 ¶¶ 25-26. *See also Bell Atlantic-NYNEX Merger Order* at 20016 ¶ 53.

[38] *WorldCom-MCI Merger Order* at 18040 ¶ 26.

[39] Memorandum Opinion and Order, *Application of Ameritech Corp., Transferor, and SBC Communications, Inc., Transferee, For Consent to Transfer Control of Corporations Holding Commission Licenses and Lines Pursuant to Section 214 and 310(d) of the Communications Act*, 14 FCC Rcd 14712, 14746 ¶ 68 (1999) ("*SBC-Ameritech Merger Order*"); Memorandum

The same reasoning applies here. Large business users do not view broadband services provided to mass market customers, such as DSL and cable modem service, as adequate substitutes for frame relay, ATM, and other large-bandwidth services. For example, while ATM services typically run at DS-3 (44 Mbps) speeds or higher,[40/] most DSL offerings are provided at DS-1 (1.5 Mbps) speeds or lower.[41/] In addition to larger bandwidth, large businesses typically demand services with higher reliability and security than are readily available from the services purchased by mass market customers. Frame relay and ATM offer security attributes that DSL does not, as well as features such as network management and traffic congestion control. Frame relay and ATM users typically have a specific need to share large data files on a regular basis, typically between multiple locations, and they use applications with bursty transmission characteristics, and need information on a real time basis. Mass market users, especially residential consumers, do not generally have these needs. In turn, large business customers are willing to pay much more for broadband services than the typical mass market customer. While

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Opinion and Order, *Application of GTE Corporation, Transferor, and Bell Atlantic Corporation, Transferee, For Consent to Transfer Control of Domestic and International Sections 214 and 310 Authorization and Application to Transfer Control of a Submarine Cable Landing License*, 15 FCC Rcd 14032, 14089 ¶ 102 n.253 (2000) ("*GTE-Bell Atlantic Merger Order*").

40/ SBC Petition at 30-31 (citing Ron Kaplan, IDC, *U.S. Packet/Cell-Based Services Market Forecast and Analysis, 2000-2005*, at 54 Table 19 (2000)).

41/ Although DSL and cable modems can accommodate downstream speeds of several megabits per second under certain limited conditions, the overwhelming majority of connections are at speeds of 1.5 Mbps or lower. *See* Justin Frimmer, *Broadband: The Faster Future of the Internet,* vcapital, at http://www.vcapital.com/Home+Page/Commentary/Frimmer-Broadband.htm (explaining that DSL's average download speed is 384 KBPs to 1.5 MBPs and the upload speed is 128 KBPs). Similarly, 98.3 percent of Qwest's DSL customers subscribe to DSL services that run at speeds of 640K or below.

DSL and cable modem services generally range from $30 to $50,[42] frame relay and ATM services can easily run into thousands of dollars a month.[43]

Thus, consistent with the Commission's prior determinations and analysis, the distinct broadband services provided to mass market and larger business customers fall into separate product markets.

2. Mass Market Services Comprise a Discrete Product Market with No Relevant Submarkets.

There is also little question about the composition of the product market for mass market broadband services. In light of the heated competition between DSL and cable modem providers,[44] it is obvious that DSL — whether provided by ILECs or other carriers — and cable

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[42] *See* Committee on Broadband Last Mile Technology, Computer Science and Telecommunications Board, Division on Engineering and Physical Sciences, National Research Council, *Broadband: Bringing Home the Bits*, 205 (2001) ("$30 to $50 per month" is "typical of cable or DSL") ("*Bringing Home the Bits*").

[43] *See* Qwest's Tariff for frame relay and ATM services, FCC Tariff 1, Sections 8.3.5 and 8.5.5 (indicating that its frame relay services range can be as high as $5,310 per month and that its ATM services can be as high $3,066 per month); *see also* SBC Petition, Crandall/Sidak Declaration, ¶ 100.

[44] Cox Communications' website, for example, markets its cable modem service to potential customers by favorably comparing it to DSL services in terms of speed and price, and also presents information to dispel "myths" about cable modem and DSL. *See* http://www.cox.com/CoxatHome/compare.asp; *see also 10 Myths About Cable and DSL Internet Technologies,* at http://www.cox.com/CoxatHome/compareMyths.asp. Similarly, AT&T's broadband website answers a list of "frequently asked questions," which includes questions regarding the differences between DSL and cable modem services. *See AT&T Broadband Internet FAQs, AT&T Broadband,* at http://www.attbroadband.com/services/other/InternetFAQ.html. *See also* Seth Schiesel, *Cable Giants Block Rival Ads in Battle for Internet Customers,* N.Y. Times, June 8, 2001 (reporting that cable companies have refused to sell advertising time to DSL providers and that a spokesperson for the cable operator Charter Communications stated that "[DSL] is the most direct competition to one of their core products and it would be cutting off their nose to spite their face to run [DSL advertising]"); International Engineering Consortium, D*SL versus Competing Broadband Access Technologies,* at http://www.iec.org/online/tutorials/evolution/topic10.html ("Cable modems, because they are already being deployed rapidly, are the most direct competitor to mass-market residential DSL service").

modem services fall within the same product market. The Commission found as much in the *AOL-Time Warner Merger Order*, where it defined the relevant product market for purposes of evaluating the effects of that merger as residential high-speed Internet access services.[45/] The Commission recognized that "[t]he main competitor to cable in the market for residential high-speed Internet services is currently DSL . . . ."[46/] Mass market customers clearly view these products as reasonable substitutes for each other.[47/] Though currently less prevalent today, satellite and fixed wireless broadband services are also functionally interchangeable and therefore fall in the same product market as DSL and cable modem service.

Most end users who subscribe to DSL, cable modem service, or one of the other mass market alternatives do so because they desire faster Internet access than is available from dial-up service. Each of these services provides significant improvement over dial-up, with standard DSL typically offering speeds more than 20 times as fast as dial-up,[48/] satellite speeds up to 10 times as fast as dial-up,[49/] and cable modem providers claiming even faster speeds. Such improvements allow for faster surfing of the World Wide Web, downloading of audio and video

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45/ Memorandum Opinion and Order, *Application for Consent to the Transfer of Control of Licenses and Section 214 Authorizations of Time Warner, Inc. and America Online, Inc., Transferors to AOL Time Warner, Inc., Transferee,* 16 FCC Rcd 6547, 6574-75 ¶ 69 (2001) ("*AOL-Time Warner Merger Order*").

46/ *Id.* at 6572 ¶ 65. *See also* Federal Trade Commission Complaint, *AOL, Inc. v. Time Warner, Inc.*, Docket No. C-3989 (filed Dec. 14, 2000) at 5 ¶ 21 (defining relevant product market for reviewing the merger as "residential broadband internet access service").

47/ *See* SPR Report at 5. In addition, 10 percent of Qwest's own DSL customers were previously subscribed to cable modem service from another provider.

48/ *See* Qwest Website at http://www.qwest.com/residential/products/dsl/index.html.

49/ *See* EchoStar Website at http://www.dishnetwork.com/content/internet/whats_starband/index.shtml.

clips, and other bandwidth-intensive applications.[50] For end users seeking improved work-at-home capabilities, each of the mass market broadband services provides similar functionality, such as the ability to download large files from a corporate local area network in a fraction of the time required with dial-up access. These services share a number of other advantages over dial-up access, such as an "always-on" connection and the ability to talk on the phone while accessing the Internet, without the need to purchase an additional phone line. The conclusion that cable modem and DSL services are in the same relevant product market is also borne out by customer preference.[51] The survey data submitted by SBC, for example, shows that customers view DSL, cable modem, and satellite services as interchangeable.[52]

While satellite and fixed wireless services are relative newcomers to this market, the Commission's *Third Advanced Services Report* shows that the number of subscribers to high speed satellite and fixed wireless broadband services grew 73 percent in the first half of 2001 – a much faster rate of subscriber growth than either DSL or cable enjoyed.[53] Such services are available to both residential and small business customers, just as DSL and cable modem

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50/ *See AOL-Time Warner Merger Order* at 6574-75 ¶ 69.

51// *See* SPR Report at 3, (noting that "[c]ustomer preferences define economically relevant product markets" and that "evidence of buyers' perceptions and considerations" can be used to infer substitutability).

52/ See, e.g., SBC Petition, Crandall/Sidak Declaration ¶ 36. *See also* SPR Report at 5-6; Michael Pastore, *Cable or DSL? Consumers See Little Difference,* Dec. 1, 2000, at http://cyberatlas.internet.com/ markets/ broadband/article/0,1323,10099_523681,00.html (reporting that a Harris Interactive Consumer TechPoll indicates consumers intending to subscribe to either DSL or cable modem service "saw little difference between" the two).

53/ *FCC Releases Report on the Availability of High-Speed and Advanced Telecommunications Capability*, FCC News Release, at 2 (Feb. 7, 2002).

services are.[54] Given the dramatic growth in satellite video services, the ability to obtain this service virtually anywhere in the continental United States,[55] and the ease with which service can be expanded to new customers,[56] the growth in satellite Internet access in particular should continue to accelerate. In addition, the use of fixed wireless broadband services is also on the rise; the number of MMDS and broadband wireless access subscribers is expected to increase from one million in 2000 to 13.6 million in 2006.[57]

In addition, other mass market broadband services are just now entering the horizon. For example, while most mobile wireless Internet access services offered today may not yet constitute true broadband services, future generations of wireless services such as 3G services will be launched in the market and compete directly with other mass market broadband services, thereby constraining the prices of those services.[58]

54/ *See, e.g.*, DIRECWAY, *Business Edition Internet Access*, at http://www.hns.com/direcway/for_small_business/learn_more/ business_edition.htm (Directv offering to small businesses).

55/ *See, e.g.*, EchoStar Website at http://www.dishnetwork.com/content/internet/whats_starband/index.shtml ("StarBand service is available virtually everywhere in the continental United States, Alaska and Hawaii[.]"); *see also* Alan Clendenning, *Rural Internet Users Could Benefit From Satellite TV Deal, Analysts Say,* The Detroit News, Nov. 3, 2001 at http://detnews.com/2001/technews /0111/04/technology-334425.htm (reporting that the Envisioneering Group estimates that satellite providers can reach all 120 million households currently accessing broadband Internet through cable modem and DSL).

56/ *See* Steven Abraham & Mark Bunzel, *Satellite's Broadband Star Rises*, at http://pwcglobal.com/extweb/indissue.nsf.../COE6F86741ABF8B3852567D00069580 ("satellite providers don't incur incremental costs to add new subscribers since launching or leasing one satellite allows them to reach millions of homes").

57/ *See Broadcom Ships World's First Single-Chip Modem For Broadband Fixed Wireless Access,* PR Newswire, Sept. 4, 2001.

58/ In Japan, for instance, one wireless provider has already launched true 3G service, while two others are preparing to launch their 3G services later this year. See Eirwen Nichols, *NTT DoCoMo's 3G Service Takes Flight This Time*, Global Telephony, Nov. 2001.

As a result, it is beyond question that mass market broadband services, including DSL, cable modem, satellite, and fixed wireless services constitute a distinct product market.

a. Narrowband "Dial-Up" Access Service Is Not in the Same Product Market as Mass Market Broadband Services.

In the *Notice*, the Commission seeks comment on the extent to which residential customers view narrowband "dial-up" access services as a substitute for broadband services.[59/] There is no basis for the Commission to depart from its determination last year that narrowband services are in a separate product market from other broadband services.[60/] In the *AOL-Time Warner Merger Order*, the Commission concluded that "high-speed Internet access services include features unavailable over narrowband, such as access to high-bandwidth content that is impractical over dial-up connections."[61/] As the Commission noted, the experience of "surfing" the Internet is more immediate and efficient over high speed connections, and narrowband users are unable to experience (or in some instances even access) multimedia content in the manner intended.[62/] Empirical studies confirm that there is little, if any, cross-elasticity of demand between narrowband and broadband services.[63/] Furthermore, the Commission has acknowledged that, over time, applications requiring higher speeds will become even more common, thus increasing the gulf between the capabilities of broadband and narrowband

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59/ *Notice* ¶ 26.

60/ *AOL-Time Warner Merger Order* at 6574-75 ¶ 69.

61/ *Id.*

62/ *See* SPR Report at 4 ("Narrowband access is generally perceived as qualitatively inferior, and is unsuitable for many applications (*e.g.* downloading of large files that may, increasingly, contain musical or video content)").

63/ *See* SPR Report at 4 (citing "Cable Modems and DSL: Broadband Internet Access for Residential Customers," *American Economic Review: Papers and Proceedings* (May 2001) at 304).

services.[64] Finally, the Commission acknowledged that the Department of Justice had come to the same conclusion in reviewing the AT&T-MediaOne merger, finding that "narrowband Internet service is not a substitute for broadband service."[65]

Although the Commission indicated that its finding of a distinct product market in that proceeding would not restrict the Commission's ability to consider market definition questions in future proceedings,[66] there is no justification to reach a different conclusion here. If anything, the past year has only increased the functional differences between narrowband and broadband access, as more bandwidth-heavy applications have been developed.

b. There Are No Submarkets in the Product Market for Mass Market Broadband Services.

The Commission also seeks comment on the existence of submarkets for mass-market services, such as (1) broadband services marketed to small and medium enterprises ("SMEs") and to small or home offices ("SOHOs"), (2) broadband services sold as wholesale inputs to other firms, such as ISPs, (3) and broadband services bundled with Internet access or customer premises equipment.[67] None of these categories of services constitutes a relevant product submarket.

There is no reason to define a submarket for SMEs and SOHOs, because these users primarily demand the same functionalities for broadband services as other mass market customers: always-on connections and sufficient bandwidth to access the Internet efficiently at a

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64/ *Id.* The Commission also found that the high consumer costs in switching to a high speed platform also supported the conclusion that high-speed Internet access services constitute a discrete market separate from narrowband services. *Id.* at 6575-76 ¶ 70.

65/ *Id.* at 6577 ¶ 73 (citing DOJ Consent Decree at ¶ 25 (Competitive Impact Statement)).

66/ *Id.* at 6575 ¶ 69 n.202.

67/ *Notice* at ¶ 23.

moderate price. Moreover, residential customers sometime subscribe to these same services in order to obtain increased bandwidth.[68] SMEs and SOHOs also are typically marketed through the same region-wide or national channels as other mass market customers. Qwest and other ILECs offer DSL services to these customers,[69] as do other carriers. Satellite providers are also providing such services to small business customers,[70] as are cable modem providers.[71]

There also would be no basis for finding that wholesale broadband services are in a separate product market or submarket from retail broadband services. First, the broadband services purchased on a wholesale basis typically consist of precisely the same broadband services that consumers purchase, albeit at larger volumes and therefore at discounted prices. Moreover, those services can be — and in some cases already are — provided by the same competitors that provide retail services. Some cable modem providers are reluctantly coming round to offering or agreeing to offer some degree of access to unaffiliated ISPs, and thus essentially providing ISPs with wholesale cable modem services, just as DSL providers today provide such services to ISPs on a wholesale basis. Wireless and satellite providers are similarly capable of providing such services.[72]

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[68] Qwest's data indicates that some of its residential customers subscribe to higher-bandwidth DSL services that are typical of those used by small and medium sized businesses.

[69] *See, e.g.,* Qwest Website at http://www.qwest.com/pcat/small_business/product/1,1354,43_3_2,00.html (Qwest DSL services for small businesses).

[70] DIRECWAY Website, at http://www.hns.com/direcway/for_small_business/learn_more/business_edition.htm (Directv)

[71] *See Product Information: Small Business Solutions* at http://www.cable-modem.net/pi/business_solutions.html (noting that cable modem connections "are a cost-effective, high-bandwidth Internet option for small and mid-sized businesses" and that Comcast Cable and Cox Communications both offer business cable modem services).

[72] For instance, EarthLink started providing satellite-based broadband service through an arrangement with Directv in May 2001. *See* Thor Olavsrud, *EarthLink Dives Into High-Speed*

While the Federal Trade Commission defined a distinct product market consisting of ISP purchases of high-speed data transmission services when reviewing the AOL-Time Warner merger,[73] this Commission declined to adopt this approach, finding that "any concerns we share with respect to this market are adequately addressed in our analysis of the consumer market for high-speed Internet access services, which is usually supplied using these transmission services as an input."[74] In other words, the prices of the underlying broadband services, in that case provided on a wholesale basis to ISPs, are constrained by the price elasticity of demand of the retail broadband services. It is well-accepted that the elasticity of demand for inputs for an end product is directly related to the elasticity of demand for the end product.[75] Thus, the same principle applies here, and broadband services provided to the mass market through ISPs are in the same product market as broadband services sold directly to the mass market.

As a final matter, broadband services that are bundled with Internet access or customer premises equipment ("CPE") should not be placed in a separate relevant product market or submarket. Because the same carriers that provide unbundled broadband services today could easily move to providing such services bundled with Internet access or CPE, there is no reason to

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Satellite Services, ISP News, May 1, 2001, at http://www.internetnews.com/isp-news/article/0,,8_755931,00.html. Moreover, given that the underlying broadband services are functionally identical for wholesale and retail services, any of these providers could easily shift its production from wholesale to retail services, or vice versa, in response to changes in the price of the other. In light of the functional equivalence of the services, wholesale customers are likely to seek such services from providers other than ILECs over time, and would be especially likely to do so in response to increases in the ILEC's wholesale pricing.

73/ *AOL-Time Warner Order* at 6575 ¶ 69 n.202 (citing Federal Trade Commission, *In the Matter of America Online, Inc. and Time Warner Inc.*, Docket No. C-3989).

74/ *Id.*

75/ SBC Petition, Sidak/Crandall Declaration ¶ 39 n.51.

believe that the competitive conditions for bundled broadband services would vary from unbundled services.

3. Broadband Services for Larger Businesses Comprise a Discrete Product Market With No Submarkets.

The second discrete product market for broadband services is comprised of broadband services for larger businesses,[76] such as frame relay, ATM, and Gigabit Ethernet service. Large business customers view these services as reasonable substitutes for each other, providing comparable functionality at similar price points.

All of these services are used by large businesses primarily for high speed data transmission on local area networks and wide area networks, as well as access to the Internet. While frame relay can be deployed at speeds as low as 56 kbps, it is typically used at higher speeds;[77] indeed, many of Qwest's frame relay customers are increasingly migrating to 1.5 Mbps service. ATM Service and Gigabit Ethernet are provided only at much higher speeds.[78] Besides the high speed nature of these services, they also all operate over packet networks independent of the public switched telephone network, which results in highly reliable and secure communications. Although these services may not be perfect substitutes for one another, they obviously are at least "reasonably interchangeable."[79]

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[76] As used here, "larger businesses" refers to large governmental and educational institutions, as well as large commercial businesses.

[77] SBC Petition at 30 (citing IDC Packet Switching Report at 17, Table 6).

[78] For example, Gigabit Ethernet provides service at speeds of 1000 Mbps, or 1 gigabit per second (Gbps). *See Technology Brief: Introduction to Gigabit Ethernet* at http://www.cisco.com/warp/public/cc/techno/media/lan/gig/tech/gigbt_tc.htm.

[79] *See LEC Classification Order* at 15793 ¶ 64; *WorldCom-MCI Merger Order* at 18040-41 ¶¶ 26-27.

In addition to the functional interchangeability of these services, they are priced similarly. For example, at a DS1 level, Qwest's tariffed price for frame relay service is $366 per month (with a $500 nonrecurring charge), while ATM service is $445 per month (with an $800 nonrecurring charge). At a DS3 level, Qwest's price for frame relay service is $5,310 per month (with a $613 nonrecurring charge), while ATM service is $3,066 per month (with a $1,300 nonrecurring charge).[80/] Thus, because these services are viewed as close demand substitutes, they constitute a separate product market with no relevant submarkets.

B. Geographic Market

Given the similar geographic nature of broadband and long distance services, it is instructive to examine the way in which the Commission has defined geographic markets for long distance services. In the *LEC Classification Order*, the Commission determined that long distance calling is comprised of a collection of point-to-point markets, because long distance end users generally do not view long distance calls originating in different locations to be close substitutes for each other.[81/] The Commission recognized, however, that assessing market power in individual point-to-point markets would be administratively impractical and inefficient, and therefore clarified that it generally would treat long distance calling "as a single national market unless there is credible evidence indicating that there is or could be a lack of competition in a particular point-to-point market, and there is a showing that geographic rate averaging will not sufficiently mitigate the exercise of market power."[82/] Moreover, when a group of point-to-point

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80/ *See* Qwest's Tariff for frame relay and ATM services, FCC Tariff 1, Sections 8.3.5 and 8.5.5.

81/ *LEC Classification Order* at 15793 ¶ 64. For example, a calling plan that provides service originating from Los Angeles, even if it is "ubiquitous" service (*i.e.*, enabling the caller to call anywhere), would not be a viable substitute for customers located in Miami.

82/ *LEC Classification Order* at 15794 ¶ 66.

markets exhibit sufficiently similar competitive characteristics, the Commission will examine that group of markets using aggregate data that encompasses all point-to-point markets in the relevant area, rather than examining each individual point-to-point market separately.

In the *WorldCom-MCI Merger Order*, the Commission applied this analysis to treat the relevant geographic market for domestic long distance services as a single national market.[83/] The Commission determined that this was appropriate because geographic rate averaging and rate integration, price regulation of exchange access services, and the availability of interstate transport capacity caused carriers to behave similarly in each domestic point-to-point market. In addition, most substantial competitors in the long distance services market were national in scope, advertised nationally, and exerted the same competitive effect in all regions. Finally, there was no credible evidence suggesting different competitive conditions in a particular point-to-point market, or groups of point-to-point markets.[84/]

The Commission should apply a similar analysis here. Like long distance services, broadband services are used primarily to connect two or more points, whether it be for access to the Internet or tying together a corporate LAN or WAN. In addition, as with long distance services, users of broadband services do not view broadband connections originating in different locations to be close substitutes for each other. Despite the point-to-point nature of broadband services, however, there is no basis in this proceeding for distinguishing among particular point-to-point markets or groups of such markets. Instead, as we discuss below, the Commission should treat the relevant geographic market for mass market and large business broadband services as the entire nation.

83/ *WorldCom-MCI Merger Order* at 18042-43 ¶¶ 30-31.

84/ *Id. See also AT&T Reclassification Order* at 3286 ¶ 22.

1. The Commission Should Treat Mass Market Broadband Services As a Single National Market

In examining the mass market, there is no reason to distinguish particular point-to-point markets served by the ILECs. In most areas where ILECs have deployed DSL there are other competitive alternatives available to consumers. As of June 2001, subscribers in 58 percent of the nation's zip codes had a choice of high-speed providers, up from 34 percent just eighteen months earlier.[85/] Seventy percent or more of U.S. households could obtain cable modem service.[86/] DSL services were available to 45 percent of customers,[87/] and satellite service is available virtually anywhere in the United States. In Qwest's territory DSL is available to only 36 percent of residences and businesses. Facilities-based CLEC and fixed wireless services in many cases also provide ready alternatives; one analyst estimates that MDS systems currently reach 55 percent of the U.S. population.[88/] In addition, analysts have predicted that satellite and wireless broadband services will grow substantially in coming years: for example, satellite services will have grown from less than 400,000 to 1 million subscribers by year end 2002.[89/] As a result, even though particular mass market customers may have different choices for broadband

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85/ *Third Advanced Services Report* at 15-16 ¶ 29.

86/ *Id.* at 21-22, 23 ¶¶ 46, 51. Even where cable modem service is not currently offered, it is relatively inexpensive to upgrade cable plant to offer advanced services. In fact, on average it is significantly more expensive to deploy DSL than to upgrade cable plant to provide cable modem service. J.P. Morgan Securities, Inc. and McKinsey & Company, *Broadband 2001 — A Comprehensive Analysis of Demand, Supply, Economics, and Industry Dynamics in the U.S. Broadband Market,* at Charts 43 and 44 (April 2, 2001).

87/ *Id.* at 23 ¶ 51.

88/ *Id.* at 25, 30-31 ¶¶ 58, 70.

89/ Yankee Group, Whose Number Is Up? (September 2001). Moreover, as noted above, it is comparatively inexpensive for satellite providers to add new customers to expand their services. *See supra* note 56.

services, few will be limited to the ILEC's DSL services. Moreover, even if a provider has not been historically active in a particular region, its proximity to the region will constrain prices if there are no economic barriers to its entry there.[90/]

While the Commission could separately analyze broadband services provided in each ILEC serving territory,[91/] there is no reason to do so. As noted, the ILECs primarily face intermodal competition in the provision of mass market broadband services. Thus, there is no argument that the ILECs control a "local bottleneck" on which other providers rely to provide competing broadband services, which was the basis for the Commission's separate examination of in-region and out-of-region long distance services in the *LEC Classification Order*.[92/] There is also no evidence that the competitive conditions in any ILEC region vary markedly from other ILEC regions. In each case, end users generally enjoy one or more of the same competitive alternatives — cable modem, satellite, fixed wireless, and DSL services. Furthermore, in addition to ILEC services, there may also be CLEC DSL offerings available. For example, Qwest is currently offering DSL in 25 markets outside its region,[93/] with access to about 1.6 million small and medium businesses and more than 18,000 current customers.

Examination of these services on a national basis is also supported by the pricing practices of the participants in this market. In the *WorldCom-MCI Merger Order*, the Commission adopted a nationwide market for domestic long distance services in part because of geographic rate averaging. Similar pricing practices have arisen for mass market broadband

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90/ *See* SPR Report at 7.

91/ *See LEC Classification Order* at 15977 ¶ 76.

92/ *See id.*

93/ *See* Qwest DSL Website, http://www.qdslonline.com/prod/locator.html.

services. Although broadband providers such as cable and satellite companies are not specifically required to adopt uniform (*i.e.*, non-geographic) rates, many have in fact done so. For example, satellite provider Directv offers one national uniform price for its DSL services.[94/] Echostar offers its StarBand satellite broadband service at a single monthly rate as well.[95/] ILECs and CLECs also have established national or region-wide pricing for their DSL services. For example, Qwest's residential DSL services begin at $21.95, regardless of the location of the end user,[96/] and Covad's and EarthLink's DSL services are similarly offered at a single rate throughout their service areas.[97/] Such uniform pricing is not surprising given that competitors advertise and market their services on a national or region-wide basis.[98/] Among other things, it would be very difficult, if not impossible, for carriers to develop and maintain pricing plans that differ depending on whether that customer has a particular choice of providers.

There is no reason to believe that this practice would change if the ILECs were freed from retail price regulation. ILECs are subject to the same practical considerations, such as advertising and billing, as their broadband competitors. Moreover, absent legitimate differences

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94/ *See* Directv Website, http://www.directvdsl.com/why/faq.asp#uprice.

95/ *See* Dish Network Website, http://www.dishnetwork.com/content/internet/starband_cost/index.shtml.

96/ *See* Qwest Website, http://www.qwest.com/residential/products/dsl/index.html.

97/ *See* Covad Website, http://www.covad.com/residentialservices/; EarthLink Website, https://register.earthlink.net/cgi-bin/wsisa.dll/broadband/main.html

98/ *See, e.g.*, Directv Website, http://www.directvdsl.com/why/faq.asp#uprice; Dish Network Website, http://www.dishnetwork.com/content/internet/starband_cost/index.shtml; Qwest Website, http://www.qwest.com/residential/products/dsl/index.html; Covad Website, http://www.covad.com/residentialservices/; EarthLink Website, https://register.earthlink.net/cgi-bin/wsisa.dll/broadband/main.html.

in the cost of serving particular customers,[99] attempts to charge different rates to customers in different geographic areas could raise issues of discrimination under section 201 of the Act.

Defining the relevant geographic market to be the ILEC's service area would be consistent with the Commission's determination in the *AOL-Time Warner Merger Order* that, at least for purposes of evaluating that merger, "the relevant geographic markets for residential high-speed Internet access services are local."[100] The Commission explained that a consumer's choices are limited to those companies that offer high-speed Internet access services in his or her area. As discussed above, however, under Commission precedent, the Commission need examine individual "localized" markets only to the extent there are different competitive conditions in particular markets.[101] Because competitive conditions across the areas where ILEC DSL services are available are generally uniform, it is appropriate to treat the nation as the relevant geographic market for these services.

In light of all these factors, the Commission should treat mass market broadband services as a single national market.

2. For Purposes of this Proceeding, There is a Nationwide Geographic Market for Large Business Broadband Services.

Similar to the analysis for mass market broadband services, there is no basis for distinguishing particular point-to-point markets within an ILEC's region for larger business

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99/ For example, it is conceivable that an ILEC — or one of its competitors — might charge an end user a higher rate if it could be provided DSL services only by using a more expensive technology. Obviously, an ILEC or any other provider may also charge higher rates for higher service quality or additional features.

100/ *AOL-Time Warner Merger Order* at 6578 ¶ 74. *See also Notice* ¶ 27 (citing *AOL-Time Warner Merger Order*).

101/ *LEC Classification Order* at 15794 ¶ 66.

broadband services. Rather, given the way in which large businesses purchase these broadband services, it is more appropriate to view this as a nationwide market.

As noted, the Commission has consistently defined relevant markets primarily on the basis of demand considerations.[102/] Accordingly, in determining the relevant markets here, the Commission must consider how larger businesses typically use frame relay, ATM, and other broadband services in that product market. Given their structure, larger businesses frequently use these high-volume broadband services to tie together geographically disparate locations, such as through corporate LANs.[103/] While the locations of some larger businesses may fall entirely within an ILEC's in-region territory, many large businesses have at least some locations spread across the country or the world. As a result, larger businesses tend to demand broadband services that are deployed on a nationwide or international basis, which Qwest and other BOCs generally cannot provide (and even after 271 relief could provide only through a section 272 affiliate).

This fact is borne out by the relative market shares of the three major providers of these services — AT&T, WorldCom, and Sprint. Nationwide, these three carriers account for about 68.7 percent of all frame relay revenues and 65.8 percent of all ATM Revenues.[104/] One key reason these carriers are able to control this much of the market clearly is their ability to offer the interLATA frame and ATM services that customers want — and that BOCs, absent section 271 relief, cannot provide. As SBC noted in its Petition, the share of the frame/ATM market that is

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[102/] *Id.* at 15782 ¶ 41; *WorldCom-MCI Merger Order* at 18040 ¶ 24.

[103/] IDC, U.S. Frame Relay Services: Market Forecast and Analysis, 2000-20005, at Table 1 (2001); IDC, ATM Services Market Share and Assessment, 2000-2005, at 7 (2001).

[104/] *See* SBC Petition, Crandall/Sidak Declaration, ¶ 106.

purely "local" is only 12 percent.[105] Thus, for example, Qwest generates less than 5 percent of nationwide frame relay revenues and only slightly more than 4 percent of total ATM revenues, as noted above. And, from a supply-side analysis, it is clear that the market is national, as well. The IXCs, as well as many CLECs, provide these services in areas across the nation and inform potential customers that they are willing to provide services anywhere.[106]

Thus, the competitive alternatives available to large businesses do not vary in a meaningful way across an ILEC's region or across the nation, and it is therefore appropriate to analyze these services on a nationwide basis.[107]

III. ILECS DO NOT HAVE MARKET POWER, AND SHOULD NOT BE REGULATED AS DOMINANT, IN ANY BROADBAND SERVICES MARKET.

Although Qwest was an early provider of DSL service, rolling it out in some markets even *before* cable modem service was offered,[108] it is the cable operators, if anyone, who come

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105/ SBC Petition at 37.

106/ *See, e.g.,* Suketa Mehta, *Telcos: Answering the Call for ATM,* LAN Magazine, March 1996 (reporting that an AT&T spokesperson stated that AT&T's ATM network can offer service "virtually nationwide" and "wherever a customer is, we'll get them into our network"); *see also* WorldCom Website, at http://www1.worldcom.com/us/products/datanetworking/ (showing that WorldCom's ATM service is available nationwide, and that its frame relay service is available from more than 700 points of presence nationwide).

107/ SBC, in its Petition, suggests that the proper market for large business services is, presumably at a minimum, the ILEC's entire in-region service area. In fact, SBC's discussion and the facts set forth there and support an even broader market definition than the ILEC's region. Given the somewhat artificial nature of LATA and service region boundaries, there is no reason to assume that large business customers typically seek to connect only to points within a particular LATA or a particular carrier's service region, especially since large businesses often will have multiple locations. Even where a customer does seek purely intraLATA service for a significant project, the same national IXCs can and do compete with the ILECs to provide the service.

108/ Qwest begin deploying its DSL services in October 1997.

closest to possessing the kind of market power that would justify dominant carrier classification. Cable operators either provide or stand ready to provide cable modem service in competition with Qwest throughout its service area. As noted above, even where cable providers do not currently provide cable modem service, upgrading cable plant to provide such service is not a prohibitive undertaking. Additionally, customers in Qwest's region, for example, can choose among satellite providers, fixed wireless providers, and/or CLECs. And in some cases competitors have exceeded Qwest's market share. Similarly, although Qwest has been providing frame relay services for approximately nine years and ATM services for approximately six years, its ability to compete with the major IXCs providing these services has always been hampered by the in-region interLATA service restrictions: while these services are an important part of Qwest's business, as noted above, Qwest has less than 5 percent of both frame relay and ATM revenues *nationwide* — including both its in- and out-of-region services.

Qwest's experience is not unique, as SBC's petition for forbearance demonstrates.[109/] By any test the Commission has ever applied, taking into account overall market share, demand and supply elasticity, and other factors, the ILECs lack market power in their provision of either class of broadband services within the relevant geographic markets. The Commission recognized this as many as four years ago, noting that the ILECs "do[] not currently enjoy the overwhelming market power [in broadband services market] that [they] possess[] in the conventional circuit-switched voice telephony market."[110/] Since that time, if anything has changed, it is only that

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109/ SBC Petition at 43.

110/ Memorandum Opinion and Order, and Notice of Proposed Rulemaking, *In the Matter of Deployment of Wireline Services Offering Advanced Telecommunications Capability,* 13 FCC Rcd 24011, 24017 ¶ 10 (1998). As then-Chairman Kennard observed, "broadband is just a nascent industry. The fact is that we don't have a duopoly in broadband. We don't even have a monopoly in broadband. We have a 'no-opoly.'" Chairman William E. Kennard,

cable broadband has gained in prominence and dominance as compared with ILEC-provided DSL services. The same lack of ILEC market power is evident in the large business market, where the Commission found almost *ten years ago* that "[t]he packet switching services market is . . . highly competitive."[111/]

By initiating this proceeding, as well as the *Framework for Broadband Access NPRM*, the Commission finally has begun to take action, rather than simply articulate the fact that action might be necessary. The prolonged delay leading up to this proceeding has produced one positive benefit, however: the Commission now knows not only that ILECs lack market power in the broadband services market, but also that their historical dominance in the local exchange and exchange access markets *has not* produced leverage that has allowed them to *gain* such market power — and thus cannot be assumed to be likely to do so in the future. Accordingly, as we show below, under the Commission's precedents and traditional analysis, it is absolutely clear that the regulatory regime must be adjusted to reflect the fact that ILECs are not dominant and are not likely to gain dominant market power in the future.

A. The Commission's Market Power Test

For purposes of classifying a carrier as dominant, the Commission has defined the relevant "market power" as a carrier's "ability profitably to raise and sustain" prices "significantly above competitive levels by restricting its own output."[112/] As recognized in the

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Remarks to the Federal Communications Bar Association, Northern California Chapter, July 20, 1999.

111/ Order, *Open Network Architecture Tariffs of Bell Operating Companies,* 9 FCC Rcd 440, 465 ¶ 68 (1993).

112/ *LEC Classification Order* at 15762 ¶ 6. *See also* SPR Report at 9 ("[a]n economically dominant firm must be such a large player . . . that it can restrict output at the margin to such a substantial extent that its output restriction cannot be effectively offset in a timely fashion").

Notice,[113] the Commission determines the existence of such market power by analyzing four factors based on "well-accepted principles of antitrust analysis":[114] (1) the carrier's market share, (2) the elasticity of demand for the services at issue, (3) the elasticity of supply, and (4) the carrier's cost structure, size, and resources.[115]

As this multi-factor test demonstrates, a carrier is not deemed to have market power merely because it has been successful at garnering some share of the market or even has some advantages in the relevant market. Indeed, a finding of market power does not even follow from having a *majority* share of the market: for example, the Commission's determinations that AT&T was not dominant in the provision of domestic interexchange services or international services were made in the face of AT&T's approximately 60 percent market share in both markets.[116] As the Commission has recognized, even when one carrier has been successful in

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[113] *Notice* at ¶ 28.

[114] *AT&T Reclassification Order* at 3293 ¶ 38; *see also* Order and Notice of Proposed Rulemaking, *Petition Pursuant to Section 10(c) of the Communications Act of 1934, as amended, for Forbearance from Dominant Carrier Regulation and for Reclassification as a Non-Dominant Carrier,* 13 FCC Rcd 14083, 14118-19 ¶ 67 (1998) ("*COMSAT Reclassification Order*"); Order, *Motion of AT&T Corp. to be Declared Non-Dominant for International Service,* 11 FCC Rcd 17963, 17977 ¶ 36 (1996) ("*AT&T International Reclassification Order*").

[115] *See AT&T Reclassification Order* at 3293 ¶ 38; *AT&T International Reclassification Order* at 17977 ¶ 36; *Comsat Reclassification Order* at 14118 ¶ 67. In assessing whether a carrier's cost structure, size, and resources may give it power as compared to other carriers or potential carriers in the market, the Commission has noted that the firm at issue must not only have an advantage in these areas, but also that the advantage must be "so great [as] to preclude effective functioning of a competitive market." *AT&T Reclassification Order* at 3309 ¶ 73. Furthermore, the Commission has found that the presence of other large and well-established carriers in the market is sufficient for it to find that "the cost structure, size and resources" of the firm in question "are not likely to enable them to raise prices above the competitive level." *LEC Classification Order* at 15811 ¶ 97.

[116] *See AT&T Reclassification Order* at 3305 ¶ 62; *AT&T International Reclassification Order* at 17978 ¶ 40.

capturing a significant amount of the market, where demand elasticity exists and customers are prepared to switch to other providers when prices rise, and where those other providers have or can obtain the capacity to serve customers who switch ("supply elasticity"), that majority market share does not confer relevant market "power."[117/] Indeed, the Commission has declined to find market power and "dominance" even where *no* actual competition exists in cases where barriers to *potential competition* are low and such competition is expected to develop.[118/] Specifically, the Commission has noted that the elasticity of supply can mitigate any potential exercise of unilateral market power by a carrier.[119/] In general, the market power test is designed to determine the extent to which the carrier is in a position to raise prices above a level a competitive market naturally would support. Under any aspect of that overall analysis, it is clear that for both the mass market and business market, ILECs lack that power. As we show below, their market share is nowhere close to the 60 percent that AT&T had when it was found nondominant, and it is not even a majority of either market. Certainly that is so for Qwest.

117/ *See AT&T Reclassification Order* at 3307 ¶ 68 ("Market share alone is not necessarily a reliable measure of competition, particularly in markets with high supply and demand elasticities"); *AT&T International Reclassification Order* at 17976 ¶ 34. The Commission has further held that when examining the supply and demand elasticities in a market, it will consider "competitors' capacity, entry barriers, the sophistication and relative bargaining power of customers in the marketplace, pricing trends, and loss of customers." *COMSAT Reclassification Order* at 14118 ¶ 67 (citation omitted).

118/ For instance, the Commission decided to forbear from regulating AT&T as a dominant carrier for international service for four countries where AT&T faced *absolutely no competition* — i.e., where it had an undisputed 100 percent market share. *AT&T International Reclassification Order* at 17998 ¶ 96. Although the Commission acknowledged that there was no competition in these four markets, it found that "historical trends suggest the strong possibility that more than one U.S. facilities-based carrier will soon enter these four markets." *Id.* The Commission noted that "such potential competition can ensure that prices continue to remain just and reasonable," particularly since there was "no evidence in the record to suggest that there are substantial barriers to entry which impede potential competitors from entering immediately." *Id.*

119/ *AT&T International Reclassification Order* at 17986 ¶ 62.

Moreover, there is ample demand elasticity and excess capacity for services in both markets as well. Indeed, the ILECs' rivals are capable of absorbing new customers now and can easily build out their plant or upgrade their services to absorb even more customers in the future. In addition, Qwest and the other ILECs do not have any cost advantages that their competitors (like cable modem providers and the large IXCs) cannot match, or more likely exceed.

B. ILECs Lack Market Power in the Provision of Broadband Services to the Mass Market.

Application of the Commission's market power analysis demonstrates that Qwest and the other ILECs are non-dominant in the provision of broadband services for the mass market. By any measure, the ILECs are the small players in this market compared to cable modem providers. In terms of market share, homes passed, and growth, the ILECs lag far behind the cable companies, and analysts predict that cable will continue to dominate this market into the future. The ILECs' limited market shares alone go a long way toward demonstrating the ILECs' lack of market power.

The remaining factors also indicate the ILECs' lack of dominance in this market. For example, given the high cross-elasticity of demand, Qwest and other ILECs could not profitably increase prices. Such price increases are also constrained by the high supply elasticity that characterizes this market. Cable companies and other suppliers of mass market broadband services could easily absorb a large enough portion of ILECs' customers to constrain their ability to raise prices. Finally, ILECs, and particularly Qwest, lack any advantages over competitors in this market in terms of size, resources, or cost structure that would confer market power on them in the provision of mass market broadband services.

1. Market Share

Today, nearly twice as many customers subscribe to cable modem service as they do to DSL services provided by the ILECs. Moreover, in the past year, cable actually increased its market share over DSL. As we discuss in more detail below, part of this trend is explainable by the much broader availability of cable modem service, but, even where cable modem service and DSL compete head-to-head, end users more often choose cable modem service.

In the *Third Advanced Services Report*, the Commission estimated that as of June 2001 there were 5.2 million "high-speed" cable modem subscribers, compared to only 2.7 million high speed DSL subscribers.[120/] Another Commission report estimated 5.6 million cable modem subscribers compared to 3 million DSL subscribers.[121/] These figures are consistent with other recent estimates. For example, the Wall Street Journal estimated 7 million cable modem subscribers nationwide, in contrast to 3 million subscribers for DSL services.[122/] As of today, DSL services as an aggregate account for a market share of less than 35 percent on a nationwide

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120/ *Third Advanced Services Report* at 21, 23 ¶¶ 45, 50.

121/ *In the Matter of Annual Assessment of the Status of Competition in the Market for the Delivery of Video Programming*, Eighth Annual Report, CS Docket No. 01-129, FCC 01-389 ¶ 44 (rel. Jan. 14, 2002).

122/ *See* Julia Angwing, *E-Business: Bells Make a High-Speed Retreat from Broadband,* Wall St. J., Col. B6, Oct. 29, 2001. The article also estimated that about 300,000 subscribers are receiving broadband service via satellite and 60,000 by fixed wireless technology. Another recent report suggested that as of year-end 2001, cable modem providers would serve as many as 7 million subscribers, while DSL providers served approximately 4.5 million. *See* Yankee Group, Whose Number is Up. (September 2001). According to this source, wireless and satellite providers combined would serve almost 400,000 end users.